7

REMARKS/ARGUMENTS

1. Claims 1, 5-6, 9-10 and 13 rejections under 35 USC 102(b) as being anticipated by Downey (Reference Examiner's Para. 4 & 5)

Downey's "golf club grip" (Title) differs substantially from the "Putter Grip" (Title) of the subject invention with respect to <u>both structure</u> and <u>object or purpose</u> in the following ways:

- With respect to object or purpose, Downey's "principle object...is to a. provide a golf club grip in which tortional forces exerted by a golfer's hands are transmitted to a predictable, repeatable extent to the golf club shaft..." (Downey, Col. 2, lines 44-46; Col. 2, lines 56-62). Clearly, Downey's grip is designed to improve the accuracy (Col. 1, line 34) of full impact clubs by accurately transmitting from the golfer's hands "tortional force...tangential to the axis of the golf club shaft." (Col. 1, lines 47-49). Thus, Downey attempts to transmit "tortional" or "tangential" force (not selective target plane vibrations) from the hands to the shaft (not from the clubhead through the shaft to the hands per the present invention. Downey never teaches, claims, or ever references impact vibration transmission much less selective impact vibration transmission from the clubhead to the hands. Downey seeks a grip with tortional rigidity (for full swing ball striking accuracy) while preserving a high coefficient of friction (Col. 2, lines 34-36). The structure and composition of Downey is drastically different from the present invention because the objects are drastically different (accurate tortional force transmission from the hands to the shaft for full swing clubs vs transmission of selective low impact vibrations of a putter).
- b. Downey's grip <u>does not selectively position</u> "two or more hard or rigid vibration transmitting elements"; Examiner's para. 5, lines 3-4. Downey has <u>only one</u> rigid inner <u>socket</u> or <u>element</u> to which <u>all protrusions</u> are connected. <u>All protrusions</u> will

8

therefore transmit <u>all</u> vibrations (desirable and undesirable) to the golfer's hands. There is no ability described or claimed to <u>selectively</u> transmit only desirable vibrations. If, Downey, for example, omitted his protrusions on the grip bottom (away from golfer's eyes), which he does not teach, he would reduce tortional vibrations which are very undesirable in putters, but he would <u>lose his tortional rigidity</u> (his primary objective). Downey's grip <u>can not have high tortional rigidity</u> while selectively reducing undesirable (for putters) tortional vibrations!

- Examiner is correct that there will "always be vibrations on the handle C. when a golf ball is hit hard enough." Full swing club impacts have orders of magnitude, more impact energy (and vibration) than putters (E=1/2Mv²; where E is clubhead kinetic energy. M is clubhead mass and v is clubhead velocity). Golfers don't judge desired full impact swing distance via vibration transmission (they just choose a different club, i.e. a 7 iron for 150 yards and a driver for 250 yards, and take a full swing for both). Putting is very different, however. Impact vibration (and sometimes related impact sound) are the only feedback available for distance control. If Downey's projections were hard enough for effective putter impact transmission to the hands (vs his desired hand to shaft full swing tortional force transmission), then such putter to hand transmission could not be both "selective" (desired vibrations only) and insulated or absorbed (so undesired tortional, transverse or sustained vibrations are not felt in the hands) because his one element rigid socket will transmit all vibrations (good and bad) to all projections which are part of the same single rigid socket material. If Downey's socket is not rigid, but just a stiffer elastomer than his jacket (his preferred embodiment), thus allowing his grips to be of the conventionally accepted slip-on type, then all vibration transmission (good and bad) of <u>putter speed impacts</u> will be almost totally dampened.
- d. Examiner states (para 5, lines 8-9) that Downey had "elements omitted at locations where undesirable impact vibrations are found in the form of where Downey

9

chose to not place the elements and place softer material (Ref. Nos. 14, 18, Figs. 6-7)." The subject reference and Downey's entire specification and claims never mentions club to hand impact vibrations or vibration transmission (only hand to shaft tortional stress or force transmission)! Clearly, there is no mention in Downey of his choosing not to place projections (which are not independent transmitting elements like the present invention, but part of his unitary core) where undesirable impact vibrations are found! Downey's projections, again not independent elements, are in all cases placed uniformly around the perimeter of his grips because he is seeking to maximize hand to shaft tortional stiffness, not clubhead to hand impact vibration transmission. (Downey Col 2, lines 43-47 and 56-63). All full impact grips, like Downey's, try to dampen or absorb all impact vibration transmissions. If a golfer were to hit a full swing club once without a grip, or one with Downey's exposed metal or rigid projections from a metal or rigid unitary socket, the severe shock or injury to hands, wrists, and arms would discourage one from doing so again.

e. Downey's triangular projections are, like Claim 6 of the present invention (but unlike Claim 7) of symmetrical section, but Downey's <u>rigid projections</u> being an integral part of his <u>single rigid socket are not</u> the <u>multiple</u> independent hard or rigid selective vibration transmitting <u>elements</u> of the present invention. In all of Downey's preferred embodiments, which provide the necessary shock absorption <u>essential</u> for all full swing grips, his unitary core with radial projections is an elastomer somewhat stiffer than his jacket material. This also allows his grips to be of the removable slip-on type essential for market acceptance. A metal or truly rigid jacket could not be removed and would injure full swing golfers. An elastomer "socket" or core, however, would absorb most or all of putter speed impact vibration transmissions, which the present invention selectively preserves.

10

2. Claim 12 rejection under 35 USC 103(a) over Downey in view of Kobayashi 4,819,939 (Ref. Examiner's para 6-7).

Claim 12 is dependent on Claim 1 which transcends Downey for the reasons previously presented in 1. above.

The subject invention of both Claim 1 and Claim 12 have <u>multiple</u> selectively placed individual transmission elements. Both Downey and Kobayashi use a <u>single</u> "inner layer", "inner jacket", "core", or "socket" attached to the shaft with a softer material over said layer, core, or socket. The present invention has no such single, unitary layer, core or socket, only <u>multiple independent selectively placed rigid vibration transmitting elements</u>.

3. Claim 19 rejection under 35 USC 103(a) over Downey in view of Bloom.

Claim 19 is dependent on Claim 1 which transcends Downey for the reasons previously presented in 1. above.

Bloom and others have used counterweights or back weighting (added weights) at the grip end of the club. Examiner cites Bloom (Col. 5, lines 6-13) and Examiner states (Examiner's pg. 5, lines 1-2) that this will lessen vibration near the end. The present invention, Claim 19, increases impact vibration at the hands. Conventional putters have a neutral vibration node (0 vibration amplitude) at 4-5 inches down from the butt end of the grip, unfortunately right between the hands. One can easily confirm this by holding a conventional putter with your thumb and index finger at 4-5" down while firmly striking the putter face with a golf ball held in your other hand. Note how sustained shaft vibrations are undampened and unfelt by these two fingers. Moving two inches up or down, however, quickly dampens these same vibrations. Adding butt counterweight moves this neutral node up (100 grams puts it about two inches from the butt end) allowing more vibration amplitude under your lower "feel" hand (right hand for

11

right hand golfers), thus Claim 19 <u>increases not reduces</u> desired putter impact vibration. Bloom never discusses or claims increasing vibration amplitude at the hands of a putter or transmitting such vibrations through multiple independent selectively placed rigid elements. Bloom's invention keeps the clubhead center of gravity at a constant distance from the clubhead through an entire set of full swing clubs (not putters) and also dampens grip end vibrations, a bad thing for putters.

Conclusion

In view of the above amended Claims and Remarks, it is submitted that the Claims are in condition for allowance. Reconsideration is requested. Allowance of Claims 1-19 is solicited.

Respectfully submitted,

John W. Rohrer

Rohrer Technologies, Inc. 5 Long Cove Road York, ME 03909 (207) 363-5502